

IN THE CLAIMS:

Please cancel claims 1-18 and add the following new claims 19-37.

19. (New) A vaccine or medical preparation comprising a protease maturation protein of *S. pneumoniae* comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2) and/or a fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof for the treatment of microbial infections.
20. (New) The vaccine or medical preparation according to claim 19 for the treatment of *S. pneumoniae*.
21. (New) The vaccine or medical preparation according to claim 19, further comprising a suitable adjuvant or carrier.
22. (New) The vaccine or medical preparation according to claim 19 wherein said protein is the protein maturation protein from *S. pneumoniae* Ft231 or EF3296.
23. (New) The vaccine or medical preparation according to claim 19 wherein said fragment comprises an anchoring fragment, an antigenic fragment or a functional equivalent thereof or a functional equivalent of a receptor binding site or an antibody binding site.

24. (New) The vaccine or medical preparation according to claim 19 wherein said protein or said fragment comprises a purified, recombinant or synthetic protein or fragment thereof.

25. (New) The vaccine or medical preparation according to claim 19 wherein said fragment comprises at least 8 amino acids.

26. (New) Method for preparation of a vaccine against *S. pneumoniae* comprising the steps of:

- a. isolating a protease maturation protein of *S. pneumoniae* comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), or a fragment thereof or a recombinant or synthetic protein or fragment thereof or homologous or functionally homologous protein or fragment thereof; and
- b. combining the protein or the fragment thereof obtained under (a) with a suitable carrier or adjuvant.

27. (New) Method for obtaining an antibody against the protease maturation protein of *S. pneumoniae*, the method comprising the steps of isolating protease maturation protein comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2) or a fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof, and raising antibodies against said protein or fragment thereof.

28. (New) Antibody comprising opsonophagocytic activity obtainable by the method according to claim 27.

29. (New) Use of a protease maturation protein of *S. pneumoniae* comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), or a fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof, for the preparation of a vaccine for the treatment or prophylaxis of a *S. pneumoniae* infection.

30. (New) Use of a protease maturation protein of *S. pneumoniae* comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), or a fragment thereof or a recombinant or synthetic protein or fragment thereof as a carrier.

31. (New) Method of treatment of a *S. pneumoniae* infection comprising administering a vaccine according to claim 19.

32. (New) Method for the vaccination of a mammal against an infection of *S. pneumoniae* comprising administering a suitable dose of a vaccine according to claim 19.

33. (New) Use of a nucleic acid sequence coding for a protease maturation protein comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), or a fragment thereof and/or a homologous and/or functionally homologous protein or protein

fragment thereof, for obtaining a recombinant protease maturation protein or fragment thereof.

34. (New) Cell containing a recombinant nucleic acid sequence or a vector encoding for protease maturation protein comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), or a fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof.

35. (New) Recombinant protease maturation protein comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), or fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof, obtainable through the expression of a gene sequence encoding for said protein in a suitable vector.

36. (New) Use of a protease maturation protein of *S. pneumoniae* comprising an amino acid sequence shown in fig. 1B (SEQ. ID. NO: 2), and/or a fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof for the preparation of a medicament for the treatment of diseases connected with *S. pneumoniae* infections.

37. (New) Use of protease maturation protein of *S. pneumoniae* comprising an amino acid sequence as shown in fig. 1B (SEQ. ID. NO: 2), and/or a fragment thereof and/or a homologous and/or a functionally homologous protein or protein fragment thereof for